(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 14 December 2000 (14.12.2000)

PCT

(10) International Publication Number WO 00/75279 A2

(51) International Patent Classification7:

C12N

(21) International Application Number: PCT/US00/15728

(22) International Filing Date:

6 June 2000 (06.06.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 09/328,925

9 June 1999 (09.06.1999) US

- (71) Applicant (for all designated States except US): RE-GENTS OF THE UNIVERSITY OF MICHIGAN [US/US]; 3003 South State Street, Wolverine Tower, Ann Arbor, MI 48109-1280 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KURACHI, Kotoku [JP/JP]; 2211 Avalon Place, Ann Arbor, MI 48104 (US). KURACHI, Sumiko [JP/JP]; 2211 Avalon Place, Ann Arbor, MI 48104 (US).

- (74) Agents: CARROLL, Peter, G. et al.; Medlen & Carroll, LLP, Suite 2200, 220 Montgomery Street, San Francisco, CA 94104 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, MIL, MR, NE, SN, TD, TG).

Published:

 Without international search report and to be republished upon receipt of that report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

A

(54) Title: NUCLEOTIDE SEQUENCES FOR GENE REGULATION AND METHODS OF USE THEREOF

(57) Abstract: The invention provides nucleic acid sequences which regulate expression of a nucleotide sequence of interest. In particular, the invention provides nucleic acid sequences which regulate expression of a nucleotide sequence of interest in an age-related manner and/or in a liver-specific manner. The invention further provides methods of using the regulatory nucleic acid sequences provided herein for age-related and/or liver-specific expression of nucleotides sequences of interest. The invention also provides host cells and transgenic non-human animals which harbor the regulatory nucleic acid sequences of the invention. The compositions and methods of the invention are useful in regulating expression of a nucleotide sequence of interest in an age-related and/or liver-specific manner.